AMENDMENT

IN THE CLAIMS

Sub B1

Claim ~~1 (currently amended)~~: A method of aligning a first image ~~to a second image~~, comprising:

determining a first alignment approximation, based on distances between one or more points in the first image and the second image, with the first and second images at a first resolution,

aligning the second image to the first image, based on the first alignment approximation, to form and initially aligned second image,

determining a second alignment approximation, based on the distances between one or more points in the first image and the initially aligned second image, with the first and second images at a second resolution different from the first resolution, and

aligning the second image to the first image, based on the combination of the first and second alignment approximations

Claim 2 (original): The method of the Claim, wherein

aligning the second image the first image based on the combination of the first and second alignment approximations is effected by:

aligning the initially aligned second image, which is based on the first alignment approximation, to the first image, based on the second alignment approximation.

Claim 3 (currently amended): The method of claim 1, wherein

determining the first alignment approximation is based on the first resolution being a low-resolution representation of the first and second images, and

determining the second alignment approximation is based on the second resolution being a ~~the~~ higher-resolution representation of the first and second images.

Claim 4 (original): The method of claim 1, wherein

determining at least one of the first alignment and second alignment approximations includes applying the RANSAC algorithm.

Claim 5 (original): The method of claim 1, wherein

determining the first alignment approximation includes an approximation of at least one of a rotation component and a translation component in an image space of the first and second images.

Claim 6 (original): The method of claim 5, wherein.

determining the second alignment approximation includes an approximation of components of a 3x3 homographic matrix.

Claim 7 (original): the method of claim 1, wherein

determining the second alignment approximation includes an approximation of components of a 3x3 homographic matrix.

Claim 8 (original): the method of claim 1, wherein

determining at least one of the first and second alignment approximations includes

identifying corners in the first and second images based on a determination of Minimum Intensity Changes at the corners.

Claim 9 (currently amended): A method of tracking an object based on a first image and a second image, comprising:

aligning the first and second images to form a set of aligned images, and

detecting motion by comparing the set of aligned images,

wherein

aligning the first and second images includes:

determining a first alignment approximation, based on distances between one or

more points in the first image and the second image, with the first and second images at a first resolution,

aligning the second image to the first image, based on the first alignment approximation, to form and initially aligned second image,

determining a second alignment approximation, based on the distances between one of or more points in the first image and the initially aligned second image, with the first and second images at a second resolution different from the first resolution, and

aligning the second image to the first image, based on a combination of the first and second alignment approximations.

Claim 10 (original): The method of claim 9, wherein

determining the first alignment approximation is based on a low resolution representation of the first and second images, and

determining the second alignment approximation is based on a higher resolution representation of the first and second images.

Claim 11 (original): The method of claim 9, further including

identifying the objects in the set of aligned images based on color matching.

Claim 12 (original): The method of claim 9, further including

determining a location of the object in each image of the set of aligned images, and

determining a movement of the object by comparing the location of the object in each image.

Claim 13 (original): A motion detecting system comprising:

a processor that is configured to:

align a first image and a second image, to form a set of aligned images, by:

determining a first alignment approximation, based on distances between one or more points in the first image and the second image,

aligning the second image to the first image, based on the first alignment approximation, to form and initially aligned second image,

determining the second alignment approximation, based on distances between one or more points in the first image and the initially aligned its second image, and

aligning the second image to the first image, based on a combination of the first and second alignment approximations; and

compare the set of aligned in the images to identify motion of objects within the first and second images.

Claim 14 (original): The motion detecting system of claim 13, wherein

The processors configured to:

determine the first alignment approximation by processing and low-resolution representation of at least one of the first and second images, and

determine the second alignment approximation by processing the higher-resolution representation of the first second images.

Claim 15 (original): The motion detecting system of claim 13, further including

one or more cameras for producing the first and second images.

Claim 16 (original): The motion detecting system of claim 13, further including

a memory for storing a representation of a target image, and

wherein

the processor is further configured to identify a target within the satellite images, based on the representation of the target image.

Claim 17 (original): The motion detecting of claim 16, wherein

the representation of the target image is a characterization based on color content that the target image.

Claim 18 (original): The motion detecting system of claim 13, further including

determining a location of an object in each image of the set of aligned images, and

determining a movement of the object by comparing the location of the object in each image.

Claim 19 (original): The motion detecting system of claim 13, wherein

determining the first alignment approximation includes an approximation of at least one of rotation component and a translation component.

Claim 20 (original): The motion is detecting system of claim 19, wherein

determining the second alignment approximation includes an approximation of components of a 3x3 homographic matrix.